

## CLAIMS

1. A chemical agent delivery system comprising:  
a chemical agent supplied to a body of a subject for delivery to a site in a central nervous system of said subject via blood of said subject; and a stimulator for stimulating  
5 parasympathetic fibers associated with the sphenopalatine ganglion, thereby to render a blood brain barrier (BBB) of said subject permeable to said chemical agent during at least a portion of the time that said chemical agent is present in said blood.
2. A chemical agent delivery system according to claim 1 and wherein said chemical agent is a therapeutic agent.
- 10 3. A chemical agent delivery system according to claim 1 and wherein said chemical agent is a diagnostic agent.
4. A chemical agent delivery system according to claim 3 and wherein said diagnostic agent comprises a contrast defining agent and wherein said system also comprises a contrast sensor which is operative to facilitate a diagnosis.
- 15 5. A chemical agent delivery system according to claim 3 and wherein said diagnostic agent comprises an antibody.
6. A chemical agent delivery system according to any of claims 1 - 5 and wherein said stimulator comprises an electrical stimulator.
7. A chemical agent delivery system according to any of claims 1 - 5 and wherein  
20 said stimulator comprises an odorant stimulator.
8. A chemical agent delivery system according to claim 7 and wherein said odorant stimulator comprises a neuroexcitatory agent.
9. A chemical monitoring system comprising:  
a stimulator for stimulating parasympathetic fibers associated with a  
25 sphenopalatine ganglion of a body of a subject, thereby to render a blood brain barrier (BBB) of the subject permeable to a chemical disposed in a central nervous system of said subject during at least a portion of the time that said chemical is present in said central nervous system; and  
a blood interface unit operative to facilitate analysis of said chemical which has  
30 passed through said BBB into blood of said subject.

10. A chemical transfer method comprising reducing concentration of a chemical in a central nervous system of a subject, by stimulating parasympathetic fibers associated with the sphenopalatine ganglion of said subject thereby to render a blood brain barrier (BBB) of said subject permeable to said chemical.